

Serial No. 10/031,218

Art Unit: 3773
Examiner: Darwin P. Erez**REMARKS**

In response to the Patent Office final rejection of April 15, 2009, the Applicant hereby requests reconsideration and reexamination. To further the prosecution of this application, a request for continued examination (RCE) has now been filed and thus all of the claim amendments should now be fully considered by the Examiner.

In the Patent Office Letter in paragraph 3, the Examiner has rejected claims 18-20 under 35 U.S.C. §102 in view of the Lingua U.S. Patnt 4,519,392. As with the previous arguments relating to the Casey '725 patent, the same also applies with respect to the Lingua '392 patent. Neither of these references teach a substantially straight section adjacent to the hinge. In Lingua such as in Fig. 1, at the living hinge it is noted that the section is either curved or on the underside is of a toothed configuration.

Moreover, it is the Applicant's position that the Lingua '392 patent does not teach both the first and second arcuate-shaped portions, nor does it teach the difference in radii between these portions. In this regard, the Applicant refers to the diagram set forth by the Examiner on page 4 of the Patent Office Action. First, the Examiner has used dashed lines added to the figure emanating from a single point and thus clearly has not illustrated two separate radii of curvature. Secondly, the Examiner's attention is directed to Fig. 1B of the Lingua '392 patent wherein it is clear that there is not a curvature for a substantial portion of the inner surface between the lip 13 and the tooth surface. This is clearly represented in Fig. 1B wherein the base latch at 20 and 21, and particularly at surface 20 is clearly linear and mates with and matches the contour of the upper jaw between those two points. Furthermore, close to the tooth area in Fig. 1B it would appear that a further straight portion exists at least on the inner surface. Thus, clearly, the Lingua '392 patent does not teach first and second arcuate-shaped portions as alleged by the Examiner. As a matter of fact, tracing the dotted line from the Examiner's diagram that slants to the left, this would intersect with a straight portion on the inner surface. The outer surface of the upper jaw in the Lingua '392 patent appears to be one continuous curve of the same radius.

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Also, in the Lingua '392 patent the thickness of the upper jaw between the latch end and the tooth section has a different width, unlike that of the present invention wherein each of the arcuate sections and the straight section are preferably of the same width.

In accordance with the present invention we also illustrated in Fig. 2 a magazine or applicator in which the clips are disposed. The Lingua clip is not applied in the same manner. The Lingua '392 clip is described in the patent as applied using a sterile clamp or a forceps-type tool. In this connection refer to the added method claims 28-30 that will be discussed in further detail hereinafter.

Thus, with regard to the rejection under 35 U.S.C. §102, it is the Applicant's position that the Lingua '392 patent does not teach both of the first and second arcuate-shaped portions as set forth in claim 18. Accordingly, claim 18 and the claims that are dependent from claim 18 should be found in condition for allowance.

In paragraphs 4-7 of the Patent Office Letter, the Examiner has set forth a rejection of claims 1-17 and 21-22 under 35 U.S.C. §103 further relying upon the Casey et al. U.S. Patent 4,489,725. Apparently, arguments previously submitted by the Applicant have been successful in eliminating the Casey et al. '725 patent as a primary reference. In the rejection under 35 U.S.C. §103, the Examiner relies primarily upon the Lingua '392 patent and thus the arguments previously submitted also apply to this rejection. In particular, neither does the Lingua '392 patent teach the claimed straight section. Moreover, the Lingua '392 patent clearly does not show separate first and second arcuate sections. In this regard, it is also noted that further amendments have been made in claims 1 and 18 to define the first and second arcuate-shaped portions as each having inner and outer surfaces. Also, claims 1 and 18 have been amended to define the radius of curvature that is set forth relates to at least the inner surface of each of these arcuate-shaped portions. Clearly, Lingua does not have both of the claimed different radii portions on an inner surface thereof. Again, reference is made to Fig. 1B of the Lingua '392 patent.

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In combining the Lingua reference with Casey et al., it is noted that the Examiner has acknowledged that Lingua does not teach a clip having a silicone rubber lining on the jaws nor does it teach the first radius of curvature being on the order of three times that of the second radius of curvature, nor does it teach a hinge pin. Although the Examiner has made arguments with regard to the rubber silicone lining and the hinge pin, the Applicant sees no arguments pertaining to where in Casey et al. is shown the teaching of a first radius of curvature that is on the order of three times that of a second radius of curvature. Accordingly, any claims in the application relating to that feature should clearly be found in condition for allowance. This relates to dependent claim 3.

The Examiner in the arguments also takes the position that modifying curvatures of arcuate sections only involves routine skill in the art. The Applicant disagrees. As set out in a description of the present invention, one of the goals is to be able to provide a surgical clip that can be passed through a relatively narrow applicator. This change in radius enables that to occur more readily. The first arcuate-shaped portion being of a larger radius enables an enlargement of the length of the clip while the second radius enables the clip to return more readily to an end termination preferable straight section.

The Examiner also in the arguments takes the position that it is mere obvious choice to apply pressure only on the straight section of the clip as the same result will occur. The Applicant completely disagrees. The advantage of the clip construction of the present invention is that the straight section allows the clip to be fed down a relatively narrow diameter tube and allows for a slightly larger length clip to be used. This is described in the present specification in the PCT version on page 6 at lines 3-13. Moreover, on page 6 it is also described that if the original clip construction were to be made longer, then the upper jaw would be a longer arcuate curve. This would be disadvantageous in particular in attempting to pass the clip through a narrow applicator.

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The inventors have found that when the prior art arcuate clip is used, a pressure applied to the curved portion of the upper jaw deforms the jaw. Refer to page 6 of the Applicant's specification at lines 15-25. As indicated, this can lead to surgical failures.

In accordance with the present invention, the inventors realized that this distortion problem could be solved by providing an initial straight section. The closure pressure is applied substantially at the distal end of this straight section and in this way the initial pressure does not distort the curved section as the contact pressure is not imposed at the curved section. In this regard, the Examiner's attention is directed to Fig. 2 of the present application wherein it is shown that there is a contact point with the clip at the distal end of the straight section and not over the curved portion of the clip. Thus, not only do the references not teach this straight section at the hinge, but they certainly do not teach the application of a contact pressure for closing the clip as applied at a distal end of the straight section. The use of two different radii in combination with the straight section allows the clip of the present invention to be fed down a small diameter tube in a semi-closed position and to be openable at the end of the tube, and to then be latched without any risk of the upper jaw being distorted when latching pressure is applied.

The Applicant has now added further claims to the application, namely claims 23-30. Claims 23-27 are dependent claims dependent directly or indirectly to claim 1 and should thus also be found in condition for allowance. Claims 23-27 recite further patentably distinguishing features in accordance with the present invention and particularly as it relates to the Lingua '392 patent.

The Applicant has also added method claim 28. This claim relates to a method of controlling the application of the surgical clip through a tubular applicator wherein the surgical clip is comprised of an elongated upper jaw and an elongated lower jaw attached together at a hinge. The lower jaw is defined as including a substantially straight section and an arcuate-shaped section contiguous with a distal end of the straight section, and a free-end section that is contiguous with the arcuate-shaped section. The method is defined in claim 28 as comprising

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passing the surgical clip through the tubular applicator to an exit end thereof and applying a contact pressure at the exit end and only to the distal end of the straight section whereby the upper jaw is distorted so that the free-end section thereof engages with the latch means but without any distortion of the arcuate-shaped section of the surgical clip. This method is clearly not taught by the Lingua patent or the combination of Lingua and Casey et al. These prior art patents do not even describe the application of a contact pressure as specifically claimed now, namely at the distal end of the straight section of the upper jaw. Accordingly, claim 28 as well as the dependent claims 29 and 30 that relate to claim 28 should now be found in condition for allowance.

CONCLUSION

In view of the foregoing amendments and remarks, the Applicants respectfully submit that all of the claims pending in the above-identified application are in condition for allowance, and a notice to that effect is earnestly solicited.

If the present application is found by the Examiner not to be in condition for allowance, then the Applicants hereby request a telephone or personal interview to facilitate the resolution of any remaining matters. Applicants' attorney may be contacted by telephone at the number indicated below to schedule such an interview.

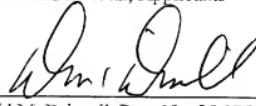
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Respectfully submitted,
Marcus Filshie et al., Applicants

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